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10/757,602	01/15/2004	Sen-Mei Cheng	BHT-3125-185	4649

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EXAMINER
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REICHLE, KARIN M

ART UNIT	PAPER NUMBER
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3761

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/757,602

Applicant(s)

CHENG, SEN-MEI

Examiner

Karin M. Reichle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

#### ***Drawings***

1. The drawings are objected to because Figure 1 is not an exploded view. Also, in the Figures, a line or an arrow from each numeral should extend to the structure it denotes, i.e. no 1211, 20 and just one line. The Figures would be in better form if the lines along which the views of Figures 2 and 3 were taken were shown in Figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Description*

2. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: page 1, first full sentence, and the abstract.

3. The abstract of the disclosure is objected to because the abstract is too long, i.e. should not exceed 150 words. See also discussion, *supra* and *infra*. Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities: The structure textually described at page 3, lines 3, and 7-13, similar descriptions on pages 1, 2, and the only claim, as well as Figures 2-3 is unclear. For example, what is meant by "like a diaper"? Only the structure shown in Figure 1, i.e. garment-like?, or also various specific layers also? Is this what is shown on the far right of Figure 3? For another example, since element 12 in Figure 2 is described as the film, what is 121? Another film? How is ink made part of whatever 121 is? What is the layer shown between 12 and 121? For third example, Applicant describes "a releasing paper", 142, "with a fastening facet", 141, "attached at one side thereon" yet as shown in Figure 3, 141 is not on the release paper. What is the "releasing paper" and "fastening facet"? What does the releasing paper release? Is it really paper? If so, how does it release? Therefore, a complete, clear, and consistent description of the invention should be set forth. Also note the following rejections.

Appropriate correction is required.

***Claim Objections***

5. Claim 1 is objected to because of the following informalities: claim 1 is replete with improper claim syntax. For example, on line 4, “thereto” should be deleted. On lines 5-6, “both...respectively” should be rewritten as --respective lateral sides thereof for fastening to the thin film--. On lines 6-7, “the present...that” should be --wherein--. On lines 12-14, “at the...there-between” should be --between said inner side of the buckling piece and the releasing paper--. The entire last section needs to be rewritten to be grammatically proper. See also discussion infra. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As set forth in MPEP 2164.04, the Examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. While the analysis and conclusion of a lack of enablement are based on the factors discussed in MPEP 2164.01(a) and the evidence as a whole, it is not necessary to discuss each factor in the written rejection. The language should focus on those reasons and evidence that lead the examiner to concluded the specification fails to teach how to make and use the claimed invention without undue experimentation.

First what is the claimed invention? As set forth in claim 1, the invention is a wearing article which comprises bamboo carbon powder provided as part of ink of diagrams of a film and within a fastening agent layer laminated with at least a buckling piece and releasing paper. Furthermore, it is claimed, as best understood, that 1) due to the “strong adhesive and dissolving capacities” of such bamboo carbon powder, the disposable wearing article is equipped or has 2a) an antibacterial capability, 2b) a humid-adjustment capability, 2c) a deodorization capability, and 2d) easily absorbs and dissolves some harmful chemicals such as sulfide, nitride, menthol, benzene or carboic acid, etc., or 3) defeats bugs. Besides 2a)-2d) or 3), the article due to 1) also 4) produces infrared suitable for absorption by the human body for good blood circulation and body health and 5) increases beneficial negative ions in the air to balance the humidity and achieve anti-bug design. Finally, 1)-5) efficiently boost the quality and effects of such article.

Second, while some specifics of the production of the powder, i.e. the bamboo starting material used in the production of the claimed end product (i.e. an article with charcoal powder therein, as best understood, see discussion *infra*), are set forth, there is no specific example of the ink with such powder nor specific example of the fastening agent layer with such powder. For example, the components, if any, of the ink other than the powder nor the amounts in which the powder and other components are present is not set forth. As already set forth *supra*, it is not set forth what the lamina 121 is and how the ink 1121, 20 is combined therewith. Likewise, the components of the fastening layer other than the powder nor the amounts in which the powder and other components are present is not set forth.

Third, while it is well known in the absorbent article art, as well as the filtering art, how to incorporate charcoal within articles to absorb certain chemicals, etc. and moisture thereby

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providing an antibacterial, humectant and deodorant effect due to its chemical properties, it is claimed in claim 1 that these functions are performed due to the strong adhesive and dissolving capacity of the powder. Charcoal as is also well known, see, e.g., Materials Handbook definitions, by itself as a powder does not dissolve or adhere, i.e. its mere physical presence in the article would not provide such. Furthermore, other functions of such carbon powder are also set forth. It is not even clear what some of the functions are, i.e. what does “defeat bug” and “achieve anti-bug design” mean? See also discussion in paragraph 7 *infra*. Therefore, it would not be known how to incorporate the powder into the article such that it performs the functions as claimed especially since it is unclear exactly what some of those functions are.

For these reasons and evidence, the Examiner concludes the specification fails to teach how to make and or use the claimed invention without undue experimentation.

7. Claim 1 is rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a credible asserted utility or a well established utility.

As set forth *supra*, claim 1 recites the invention being a wearing article which comprises bamboo carbon powder provided as part of ink of diagrams of a film and within a fastening agent layer laminated with at least a buckling piece and releasing paper. Furthermore, it is claimed, as best understood, that 1) due to the “strong adhesive and dissolving capacities” of such bamboo carbon powder, the disposable wearing article is equipped or has 2a) an antibacterial capability, 2b) a humid-adjustment capability, 2c) a deodorization capability, and 2d) easily absorbs and dissolves some harmful chemicals such as sulfide, nitride, menthol, benzene or carboic acid, etc., or 3) defeats bugs. Besides 2a)-2d) or 3), the article due to 1) also 4) produces infrared suitable for absorption by the human body for good blood circulation and body health and 5)

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increases beneficial negative ions in the air to balance the humidity and achieve anti-bug design.

Finally, 1)-5) efficiently boost the quality and effects of such article.

First it is noted that the bamboo carbon powder as disclosed is, as best understood, a powder of charcoal which charcoal originated from bamboo. However, see, e.g., U.S. Patent No. 6,187,324 to Ogi, at col. 5, last paragraph, i.e. charcoals from various origins known to function similarly. Therefore, as best understood, Applicant alleges that charcoal powder has the utilities 1)-5). It is well known in the absorbent article art, as well as, e.g., the filtering art, that charcoal within articles absorbs certain chemicals, etc. and moisture thereby providing an antibacterial, humectant and deodorant effect due to its chemical properties, see, e.g., The Materials Handbook excerpts. However, Examiner has consulted sources of contemporary knowledge, i.e. scientific and technical sources, excerpts from treatises and books which are widely accepted by the scientific community including but not limited to the above referenced Materials Handbook, the Steadman Medical Dictionary, the Merck Manual, with regard to charcoal. Such consultation shows that the scientific community does not regard, i.e. set forth, the utility of charcoal to include the claimed functions, i.e. utilities, of 3)-5) supra nor the properties set forth in 1) which would cause it to function or from which it would inherently function as set forth in 2a)-5) supra nor any properties overall which would cause it to function or from which it would inherently function as set forth in 3)-5) supra.

Given such considerable doubt of the scientific community regarding the claimed utility of charcoal, one of ordinary skill in the art would reasonably also doubt the asserted utility of the claimed invention, i.e. more than likely question the truth of the asserted utility, absent



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acceptable proof to the contrary. It is noted that the removal or deletion of the last paragraph would overcome the rejection in this paragraph as well as that in paragraph 8.

8. Claim 1 is also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a credible asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention. See the discussion in paragraph 7, *supra*.

9. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear what structure the terminology “like a diaper for babies” requires at a minimum. Just the structure explicitly set forth on lines 1-6, i.e. a garment-like structure, i.e. sections, buckling pieces, thin film?, or that structure in combination with something else, e.g. some kind of absorbent? It is also unclear how the fastening facet and the releasing paper, and thereby also the buckling piece, are attached to each other, i.e. what is meant by “attached at one side thereon”, i.e. is the facet attached to the buckling piece laterally of the releasing paper or with the releasing paper between the facet and the piece. See also the discussion in paragraph 6 *supra*. Therefore the function of the bamboo powder and article set forth in the last section is also unclear, i.e. what is meant by “defeats bugs”?

### ***Claim Language Interpretation***

10. It is noted that since none of the claim terminology has been specifically defined, the usual, i.e. dictionary, definition will be given thereto. Therefore, “disposable” is interpreted to

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mean capable of disposal after one or more than one uses. It is further noted that lines 15-17 recite the process by which the bamboo carbon powder is prepared, i.e. this claim is a product by process claim. As set forth in MPEP 2113, even though product by process claims are limited by and defined by the process, i.e. the process of producing the powder, determination of patentability is based on the product itself, i.e. the end product. If the end product in the product by process claim is the same as or obvious from the product of the prior art, the claim is unpatentable even though the prior product was made by a different process. See discussion with regard to bamboo carbon material and charcoal supra. The end product of claim 1, also taking into account the lack of clarity set forth in the paragraphs supra, is interpreted as a garment-like wearing article which is capable of disposal after one or more than one use with the structure explicitly set forth on lines 1-7, e.g. sections, film, diagrams, buckling pieces, but not requiring any absorbent, and the diagrams provided with an ink having charcoal powder therein (lines 8-9 and 15-17), a buckling piece with a fastening structure and release structure on the inside thereof and the release structure being laminated to the piece by a fastening agent layer having charcoal powder therein (lines 10-17). Due to the charcoal powder, the article has functions, capabilities and properties as set forth in the last section of claim 1, as best understood. Note again though the discussion in the paragraphs above.

### ***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al '528 (and thereby Hirotsu '875 and Matsumoto et al '588) in view of Brusky '731, Yoshida JP '747, and Yeo '076.

See the Claim Language Interpretation section supra and Weber et al at, e.g. the Figures, and the abstract, col. 2, lines 29-56, (and thereby Hirotsu at col. 11, lines 1-11 and Matsumoto et al at Figure 1 and 6-13B, col. 4, lines 34-43, col. 2, lines 57-60, col. 3, lines 10-12, col. 3, line 60-col. 4, line 23, i.e. graphics of adhesive/resin with ink or pigment), col. 5, lines 27-44, col. 10, lines 26-33, col. 11, line 59-col. 13, line 3, col. 17, lines 40-49, col. 18, lines 19-21 and col. 20, lines 45-57 teaches a garment-like wearing article which is disposable after one or more than one use having a belly section 22, a "thin" film, e.g. 40, 84/85 or 40 and 84/85, i.e. "thin" is considered relative absent the recitation of specific dimensions, with graphics, i.e. diagrams, e.g. 84, 85, 61 or the graphics of 84/85, thereon attached to the belly section at a front side thereof and a wrapping section 24 with two buckling pieces attached at the respective lateral sides, e.g. 82/83 or an adhesive fastener,. The pieces also include graphics thereon. The graphics associated with the fasteners provide information prior to wear but remain hidden during wear. However, while the Weber et al device teaches a thin film with diagrams or graphics defined thereon provided of ink or pigment and adhesive fasteners, i.e. buckling pieces, with informational graphics which are hidden during wear, the Weber reference does not explicitly teach the "dark" ink or pigment (the terminology "dark" is considered relative absent claiming of specific dimensions thereof ) having charcoal powder therein nor the fasteners including buckling pieces having a fastening structure, a release structure and a fastening layer agent with

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charcoal powder therein. However see Brusky '731 at the Figures, col. 1, lines 1-44, col. 3, lines 42-56, col. 4, lines 31-59, and col. 7, lines 36-60, which teach another garment-like wearing article which is disposable with a belly section, a thin film, 90, attached thereto, and a wrapping section with two adhesive fasteners. The adhesive fasteners have informational graphics thereon which remain hidden during wear. The adhesive fasteners include a buckling piece 26, a fastening structure 62, a releasing structure 48 and a fastening layer agent 52. The graphics are ink and may be formed within the releasing agent layer. See also Yeo '076 at the Figures and the last sentence of the abstract and col. 6, line 18-col. 7, line 39 and Yoshida JP '747 at the English abstracts and Figures, i.e. adhesive/binder/resin based inks or pigments for printing graphics in wearing articles such as diapers include charcoal such as carbon black, i.e. charcoal powder, or charcoal powder from bamboo. To make the fastener having graphics thereon of Weber a buckling piece with a fastening structure and releasing structure on the inside thereof and the releasing structure being laminated to the piece by a fastening agent layer having ink therein as taught by Brusky would be obvious, In re Siebentritt, 54 CCPA 1083, i.e. equivalents are interchangeable for their desired function, express suggestion of desirability of substitution not needed to render such substitution obvious, i.e. in the instant case the interchange of one fastener with informational graphics thereon which are hidden during wear for another.

Furthermore, to make the adhesive/binder/resin based ink or pigment of the graphics of the prior art, if not already, one which includes charcoal such as charcoal powder from bamboo or carbon black such as taught by Yeo or Yoshida also would be obvious, see again In re Siebentritt, supra, i.e. in the instant case, the interchange of one ink or pigment for another. In so doing, the prior art combination teaches diagrams provided with "dark" ink having charcoal

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powder therein at the very least and charcoal powder originating from bamboo at the very most and teaches the claimed buckling piece structure with a fastening agent layer having charcoal powder therein at the very least and charcoal powder originating from bamboo at the very most.

With regard to the function set forth in the last subsection of claim 1, see the English abstract of Yoshida, i.e. the prior art teaches such explicitly, or, as best understood, see discussion supra, such necessarily and inevitably flows from the presence of the charcoal powder and the prior art combination teaches the presence of such powder.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The other cited but not applied art teaches various aspects of the claimed invention.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karin M. Reichle whose telephone number is (571) 272-4936.

The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tanya Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Karin M. Reichle  
Primary Examiner  
Art Unit 3761

KMR  
September 23, 2005